

New challenges in reporting energy statistics

InterEnerStat meeting, October 2018

Marek Šturc European Commission - Eurostat

Eurostat

Main challenges for future reporting

- Reporting international trade & fuels in stock
- Disaggregated data
- New renewable sources for heating & cooling
- > Blending of renewable and non-renewable fuels
- Conceptual borders for non-combustible fuels
- Harmonised approach to all energy products
- Inclusion of synthetic fuels





Reporting international trade & fuels in stock

- Energy market liberalisation in Europe
- Confidentiality issues
- Genuine non-knowledge on origins and destinations
- Lack of accuracy for energy security and energy dependence analyses





Disaggregated data

- Need for more disaggregated data, especially end-use sectoral statistics
- Fuels with fundamental environmental and climate impacts ("non-conventional")
- ISIC (NACE) concept vs energy statistics sectoral concepts
- New technologies (production & transformation)



eurosta

New renewable sources for heating & cooling Ground sourced ambient heat captured by heat pumps vs. geothermal energy **Renewable cooling (e.g. river** based district cooling; ice storage)





Blending of renewable and non-renewable fuels

- Currently reporting is possible only for liquid biofuels (gasoline/diesel/jet fuel) and biogases
- Many new technologies on the market, often very small quantities
- Much more under research
- Biolubricants, biobitumen, bioLPG, ...





Conceptual borders

- for non-combustible fuels
- All biogas and bioliquids reported as domestic production regardless of feedstock origin
- The same for nuclear
- Borderline between active and passive systems for geothermal and solar thermal energy not clearly defined
- In relation to statistical reporting, should there be a concept of "meaningfulness" in the way how we use non-combustible fuels?





Harmonised approach to all energy products

- Why solar thermal heating of sanitary hot water in passive system is excluded and "primitive" solar thermal heating of outdoor swimming pool is included?
- Why heating of outside swimming pool with geothermal energy can be included and "heating of lake/lagoon with nuclear power plant waste heat" is excluded? Should there be a threshold on the number of swimmers?
- Why renewable fuels genuinely replacing fossil fuels used for non-energy purposes are excluded from our scope?





Inclusion of synthetic fuels

- Power to gas technologies (e-gas)
- Additional carbon into the energy

system







IRES revision

- IRES adopted in 2011
- Drafted 2009-2010 (nearly 10 years ago)
- Many changes on energy market and also developments for energy technologies
- Eurostat supports discussions on updating and complementing IRES
- The delay between adoption and publication could be seen as an argument to start the work now







Thank you!

Marek.Sturc@ec.europa.eu

Eurostat



Annex – back-up slides

Marek Šturc European Commission - Eurostat

Eurostat

Boundaries of the statistical system for energy

- Energy statistics needs clearly defined system boundaries for energy flows we monitor for statistical purposes
- These boundaries should be consistently defined for all fuels and all technologies – there should be no preferential treatment of certain fuels or technologies
- We need to clearly communicate these boundaries to users of our energy data
- This presentation does not present solutions, but only arguments why this is an important topic to further discuss



Biolubricants /1

Renewables consumed for non-energy purposes are excluded from reporting in the joint annual energy questionnaires.

However, they genuinely contribute to reduction of consumption of fossil fuels that are to be reported.



Biolubricants /2

Commission

EU28, Lubricants (ktoe) **Total final non-energy consumption**



Solar thermal water heating /1



Simple and effective solution for delivering hot water for various purposes: sanitary hot water, heating of swimming pools, ...





Solar thermal water heating /2



What is the real conceptual difference between active and passive systems?





Solar thermal water heating /3

Why only some hot water consumed for sanitary purposes in buildings is to be reported? Why some simple, efficient and effective technologies are not to be reported?

Are policy makers aware which technologies are eligible for accounting towards statistical accounting of renewable energy?

Are policies promoting use of renewable energies intended to promote the use of solar thermal energy used for the seasonal heating of swimming pools?



Solar thermal space heating /1





European Commission

Solar thermal space heating /2



Passive solar cooling (Summer)

Microsoft Illustration



Passive solar heating

(Winter)

Solar thermal space heating /3

In the modern deployment of solar thermal heating systems, active and passive technologies are often blended together.

Our statistical definitions might be influencing real world business decisions and deployment of certain technologies.

Should our statistical definitions be defined by policy makers deciding on eligibility of renewable technologies for financial support?



Geothermal energy /1





European Commission



EXCLUDED FROM ENERGYSTATISTICS

Geothermal energy /2

Several EU countries report geothermal energy used in spa (health baths) and indoor/outdoor swimming pools.

Are all reporting countries aware that such use of geothermal energy should be reported?

Is energy statistics for geothermal energy comparable on international level?



Boundaries of the statistical system for energy

- In order to deliver harmonized energy data that are comparable across countries and regions, system boundaries have to be clearly defined.
- Reporting some renewable energy technologies is challenging for the energy statistic system of fossil fuels.
- Eurostat highly support wider conceptual reflection on the system borders of energy statistics established on the technology neutral approach.

